Central Valley Regional Water Quality Control Board
23/24 April 2009 Board Meeting

Response to Comments for Barrel Ten Quarter Circle Land Company
Barrel Ten Quarter Circle, Escalon Cellars
Tentative Waste Discharge Requirements

The following are Regional Water Quality Control Board, Central Valley Region (Regional Water Board) staff responses to comments submitted by interested parties regarding the tentative Waste Discharge Requirements (WDRs) for the Barrel Ten Quarter Circle, Escalon Cellars winery. The order was initially distributed for public comment on 12 December 2008. Comments were required to be submitted to the Regional Water Board by 9 a.m. on 12 January 2009. Comments were received from the California Sportfishing Protection Alliance (CSPA) and Kennedy/Jenks (K/J) Consultants. The KJ Consultant comments consisted of minor text changes provided in a telephone conversation.

On 9 January 2009 Barg, Coffin, Lewis & Trapp, representing the Discharger, requested a delay in the schedule for Regional Water Board consideration of the tentative WDRs so that the CSPA comments could be addressed. That request was granted.

The tentative WDRs were not changed from the 12 December 2008 transmittal version and were distributed for public comment on 25 February 2009. Public comments regarding the proposed order were required to be submitted to the Regional Water Board by 9:00 a.m. on 9 March 2009 in order to receive full consideration.

The Regional Water Board received comments regarding the tentative WDRs revision by the appropriate due date from the CSPA and from K/J Consultants representing the Discharger. The submitted comments were accepted into the record, and are summarized below, followed by Regional Water Board staff responses.

BARREL TEN QUARTER CIRCLE COMMENTS

General Discharger Comments - The Discharger requested several minor, non-substantive wording changes in a telephone conversation with staff. These changes were generally incorporated in the tentative WDRs.

Additional comments were provided in a 6 March 2009 K/J Consultants letter that addressed the 6 January 2009 CSPA comment letter. The letter asserts that CSPA has made two fundamental mistakes:

Comment: First CSPA asserts that the current discharge is degrading groundwater quality, but this assertion is wrong because (1) it is based on data from the very different prior discharge and (2) the data from the current discharge indicate it is not degrading groundwater quality.

RESPONSE:
Staff agrees that the antidegradation analysis must consider current practices, but the K/J letter overstates certain aspects of those differences. Prior to the WDRs that were adopted in 1991, the discharger (former owner) was allowed to discharge at least a portion of the wastewater to surface water drainage (WDRs Orders No. 75-3, 80-11, 86-003). In addition, a large portion of the wastewater discharged consisted of cooling water that contained elevated temperature, and was unlikely to contain significant amounts of the wastewater constituents such as biochemical oxygen demand (BOD) or Fixed Dissolved Solids (FDS). Order No. 91-223 (which prohibited surface water disposal) estimated cooling water to make up 1.0 million gallons per day (Mgpd) of the 1.4 Mgpd of wastewater. Although Order No. 91-223 only included a flow limit of 1.4 Mgpd for all wastewater, the actual wastewater flow was estimated at approximately .4 Mgpd, exclusive of cooling water flows. Interim flow limits imposed by Cease and Desist Order (CDO) No. R5-2003-0125 limited wastewater discharges to 0.140 Mgpd and 0.45 Mgpd during crush months (August through October). The proposed Order does not include the higher crush-season limits and includes an annual flow limit. In addition, distilling activities, which generate significant amounts of high strength wastewater, were performed until approximately 2001. Distilling has been discontinued at the facility and is prohibited by the tentative WDRs.

The second point is that data from the current discharge indicates it is not degrading groundwater. At this time the discharge's effect on groundwater is uncertain. The tentative WDRs include the requirement to prepare technical reports that are designed to answer the question about the need for changes in Land Application Area (LAA) crop management and source control of FDS in the winery. Without identifying what data is referred to in the comment, it is impossible to evaluate the statement.

Second, CSPA asserts that the proposed future discharge will degrade groundwater quality because it will be an intensification of the current discharge, which, CSPA asserts, is degrading groundwater quality. This assertion is incorrect because (1) as noted above, the current discharge is not degrading groundwater quality, (2) new and improved process water management systems (designed to prevent future discharger from causing or contributing to and groundwater degradation) will be installed before the proposed future discharge begins, and (3) monitoring will be conducted to confirm that the new and improved systems are working.

RESPONSE:
Each of the statements is discussed below:

1. See above.

2. The "new and improved process water management systems" have not yet been designed. The Facility Upgrade Workplan will present the results of the Crop Uptake and Assimilative Capacity Report (CUAC) report and present changes to

the wastewater system to allow the Discharger to comply with the Antidegradation Policy. All improvements at the facility are required to be complete by 26 November 2012.

3. Monitoring will be conducted, and is required by the tentative WDRs. However, the waste constituents being discharged presently are typically the same as have been discharged in the past. Because many of the constituents are elements, they do not break down. Distinguishing past from present waste constituents is difficult. However, the tentative WDRs and MRP do require the Discharger to demonstrate that its ongoing operations meet applicable objectives and do not degrade groundwater in violation of Resolution 68-16.

CALIFORNIA SPORTFISHING PROTECTION ALLIANCE COMMENTS

Designated Party Status. CSPA requested designated party status with regard to the WDRs revision for the Barrel Ten Quarter Circle Land Company, Escalon Cellars facility. The Discharger objected in the K/J letter dated 6 March 2009. The board will address this request separately.

Comment No. 1. The proposed waste discharge requirements (WDRs) do not comply with California Code of Regulations (CCR) Title 27 as the discharge is not in compliance with the applicable water quality control plan (Basin Plain).

The comment states that discharges may only be exempted from Title 27 if WDRs have been issued; the discharge is in compliance with the applicable Basin Plan; and the wastewater is not hazardous (T27, Section 20090). The comment also states:

a. Groundwater has been degraded as a result of waste application at the winery.

b. The discharge has not been shown to be in compliance with the Antidegradation Policy.

c. The tentative WDR should not be adopted, and a cleanup and abatement order should be issued halting all wastewater discharge until a Title 27 permit can be issued.

d. Compliance with Title 27 should be considered as BPTC for this discharge.

e. The winery is a for-profit business and degrading groundwater quality for profit is not in the best interests of the people of California.

f. The tentative WDRs do not exempt the Discharger from Title 27 requirements.

g. The proposed hay crop will not prevent degradation of groundwater. Salt has no agronomic application rate. No crop takes up the amount of FDS that is presently being applied. The ratio of carbon to nitrogen to phosphorus should be 20:5:1. Monitoring is inadequate to ensure proper nitrification.

h. The attenuation factor for the site is a factor of one, so effluent limitations at the point of discharge cannot exceed water quality objectives.

RESPONSE:
Each of the items is addressed below:

a. Groundwater at the winery has been degraded. However, the Discharger has initiated changes at the facility that will change the volume and strength of the wastewater. Effluent limitations contained in the WDRs will limit the discharge to the present day strength and further reductions in the limit will be imposed, reaching a limit of 750 mg/L for FDS in February 2013. The time schedule contained in the WDRs is designed to allow the Discharger time to determine a sustainable wastewater loading rate and construct improvements to the facility to protect groundwater quality.

   CDO No. R5-2003-0125 limited the flow rate to 0.140 Mgpd. This reduced the flow limit from the WDRs 1.4 Mgpd. The revised WDRs allow a slightly higher flow rate (0.160 Mgpd) but require reductions in the concentration of waste constituents in the wastewater, thereby reducing the loading rate to the LAAs. The reduced flow rate, with the effluent concentration limits, will reduce the wastewater constituent loading rate to the land application areas. The Discharger is also required to perform technical studies and determine the sustainable loading rate in the Facility Upgrade Workplan, due in August 2011.

b. The WDRs require the Discharger to submit an antidegradation study in August 2011. This will allow the Discharger to determine the background groundwater quality, perform the site-specific Crop Uptake and Assimilative Capacity (CUAC) report to determine the crop uptake rate, and the facility improvements that are needed.

c. The facility is presently operating and significant changes have been made since 2003, which reduce the wastewater constituent loading rates. The WDRs order includes a time schedule for implementation of improvements and increasingly stringent effluent limitations. It is anticipated that the discharge will comply with the requirements of the Basin Plan when the improvements are complete. Because wastewater system improvements will be constructed at the facility, a Title 27 order is not appropriate for the discharge while the improvements are being constructed.

d. As previously stated, pending improvements at the facility, a Title 27 order is not necessary at this time.

e. State Water Resources Control Board (State Board) Resolution No. 68-16 (the Antidegradation Policy) requires that the Regional Water Board, in regulating the discharge of waste, must maintain the high quality of waters of the state until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the state, will not unreasonably affect beneficial uses, and will

not result in water quality less than that described in the Regional Water Board's policies (e.g., quality that exceeds water quality objectives). Resolution No. 68-16 also requires that waste discharged to high quality waters be required to meet WDRs that will result in the best practicable treatment or control of the discharge. Resolution 68-16 prohibits degradation of groundwater quality as it existed in 1968, or at any time thereafter that groundwater quality was better than in 1968, other than degradation that was previously authorized. An antidegradation analysis is required for an increased volume or concentration of waste.

The facility has been in operation for over 100 years. Area groundwater has also been impacted by surrounding dairy operations. Degradation caused by prior activities at the facility may require corrective action.

However, limited degradation of high-quality groundwater by some of the typical waste constituents released with discharge from a winery (after effective source control, treatment, and control) may be consistent with maximum benefit to the people of California at appropriate sites. When allowed, the degree of degradation permitted depends upon many factors (i.e., background water quality, the waste constituent, the beneficial uses and water quality objectives, management practices, source control measures, waste constituent treatability).

This Order does not allow an increased volume of waste or an increase in wastewater flow compared to the discharges allowed in Order 91-233. Although the concentration of wastes will increase somewhat, the total volume of waste will not increase due to the reduction in the permitted wastewater flow. This Order therefore does not allow any increased degradation of groundwater.

The Discharger cannot fully evaluate actual impacts on groundwater until completion of crop studies, and implementation and monitoring of new or planned facility upgrades (see Findings 13, 15-20, 26, 29, and 33-39), and any additional measures that will be required to comply with Provision G.1.

This Order limits the wastewater discharge to 40% of the previous winery wastewater discharge, imposes new effluent limitations, limits land application of nitrogen to agronomic rates, and prohibits distilling operations, which produce high-strength waste. This Order contains tasks for assuring that BPTC and the highest water quality consistent with the maximum benefit to the people of the State will be achieved. Upon completion of the scheduled tasks, this Order will therefore prohibit the Discharger from causing or contributing to an exceedence of groundwater objectives, and minimizes any degradation that may occur pending completion of the required tasks. Completion of these tasks, and implementation of the approved strategies developed from that work, will ensure that BPTC and the highest water quality consistent with the maximum benefit to the people of the State will be achieved.

The Discharger expects the facility to provide 26 year-round and 26 seasonal jobs. Prohibiting discharges pending completion of the required facility upgrades could eliminate some or all those jobs. In addition, it is reasonable to assume that the facility provides an economic benefit to the growers that will use the crushing facilities, and to equipment suppliers and transportation companies.

Any limited, short-term degradation that may result while the Discharger completes the required studies is consistent with maximum benefit to the people of the State. This Order establishes requirements to ensure the discharge will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan. This Order establishes effluent limitations that are protective of the beneficial uses of the underlying groundwater, requires a salinity source reduction, and requires the sampling of groundwater monitoring wells to determine if the discharge of waste further impacts the underlying groundwater quality. Based on the result of the scheduled tasks, this Order may be reopened to reconsider effluent limitations and other requirements to comply with Resolution 68-16. Accordingly, the discharge is consistent with the antidegradation provisions of Resolution 68-16.

f. An analysis of the exemption of the discharge from Title 27 has been added to the tentative WDRs. With the time schedule order in the WDRs, the facility qualifies for the exemption. The WDRs, including the Effluent Limitations, Land Application Area Requirements and the compliance schedule in Provision G.1, require the discharge to comply with the Basin Plan on or before 1 February 2013 for FDS and 26 November 2012 for other constituents.

g. The CUAC report will establish a site-specific crop uptake rate. That information will be used in the Facility Upgrade Workplan to determine the sustainable loading rate at the facility. Additional source control in the facility may be required to lower the loading rate to a sustainable level.

h. An attenuation factor for the site has not been established. That value will be established as part of the technical studies required by the Facility Upgrade Workplan. Note that a requirement to obtain approval of the workplan by the Executive Officer has been added to the WDRs.

Comment No. 2 The proposed WDR authorizes expansion of the waste discharge system including allowing construction of new waste ponds without compliance with CEQA and contrary to the Antidegradation Policy (Resolution 68-16). In addition, the Discharger engaged in illicit construction of wastewater ponds without authorization from the Regional Board.

The comments also state:

a. The Discharger installed an 8.3 acre tailwater/wastewater collection pond in the land application area.

b. The pond is not lined, will receive designated waste, will degrade groundwater quality, and is not consistent with the Antidegradation Policy.

c. The pond was installed without California Environmental Quality Act (CEQA) documentation, a use permit from the County may not have been issued, and the Regional Water Board must now satisfy CEQA before allowing the pond to be used for waste disposal.

RESPONSE:
Each of the items is addressed below:

a. The Discharger did install a new basin (pond). The Discharger states it was constructed for the storage of supplemental irrigation water that is delivered, and to collect stormwater that falls on the LAAs. Wastewater will not be directly discharged to the basin, although some tailwater may enter the basin during summer months for short-term storage. As described in the tentative WDRs, drainage into the basin is controlled by earthen berms and valves. The soil must be physically moved and the valve opened for water to flow off the LAAs into the basin. During summer months, if water enters the basin, it will be reapplied during the next irrigation cycle.

b. The basin is not lined but the water that will be discharged to it will not be winery wastewater. The Discharger states the basin will primarily store irrigation water delivered to the facility and stormwater that falls on the facility, LAAs, and basin.

c. The Discharger's operations at the facility involve negligible or no expansion of the crushing and fermenting operations covered by Order No. 91-223. Order No. 91-223 authorized discharge of 0.4 mgd of winery wastewater (excluding 1 mgd of cooling water discharges that have been discontinued). These WDRs only allow discharges of 0.16 mgd (160,000 thousand gallons per day) of combined wastewater and stormwater, and also include a new annual flow limitation. The Discharger constructed the stormwater basin prior to submitting its Report of Waste Discharge (RWD). The basin is therefore part of the project "baseline." In addition, the Discharger will only use the basin to store stormwater, tailwater and irrigation water. Similar quantities of stormwater, tailwater and irrigation water were discharged at the facility's land application areas before construction of the basin in accordance with Order No. 91-223. The action to adopt WDRs for this existing facility is exempt from the provisions of the CEQA, in accordance with Title 14, California Code of Regulations (CCR), Section 15301.

Comment No. 3. The proposed WDR should include an Enforcement Order or require cessation of the discharge until compliance with Title 27 requirements can be achieved.

RESPONSE: CWC Section 13263(c) states WDRs may contain a time schedule. The proposed WDRs include a schedule for completion of technical reports, increasingly stringent effluent limitations, and implementation of improvements to prevent future groundwater degradation above unacceptable levels. Unlike the Clean Water Act, the Porter-Cologne Water Quality Control Act does not limit the types of compliance schedules that the Regional Water Board can place within WDRs. Since the WDRs include a compliance schedule that will achieve full compliance with the applicable Title 27 exemption, no separate enforcement order is necessary.

Assessment of civil liability for past discharges in violation of the existing WDRs or CDO is within the Regional Water Board's discretion. Nothing in Porter-Cologne or the Enforcement Policy requires the board to assess civil liability before renewing and updating the WDRs. The board may, but is not required to, assess such liability later. In addition, the board may require corrective action for past discharges that violated WDRs or that created or threaten pollution or nuisance.

Comment No. 4. The Regional Board has failed to notify downgradient and sidegradient property owners regarding their status as a designated party. The proposed WDR fails to require testing of domestic wells to determine the health impacts to the public.

RESPONSE: The tentative WDRs were published on the Regional Water Board's webpage and a 30-day public comment period was allowed. In addition to the normal state and county agency distribution list, the owner of G&H Dairy, the dairy's attorney and consultant received written notification through the U.S. Mail. Subsequently, the WDRs were renoticed for a 10 day comment period. We distributed the tentative WDRs to all interested parties and public agencies that might be interested in the tentative WDRs. It is not the Regional Water Board's normal practice to develop, and the Bagley-Keene Open Meeting Act does not require, mass mailing lists for every tentative WDRs order that is developed. The Regional Water Board provided notice to all parties who requested notice in writing, and all parties known to be interested in this matter. (Ca. Gov. Code § 11125; Cal. Code of Regs., tit. 23, § 647.2(e).) There were no parties that requested to be notified either verbally or in writing, and no other persons have contacted staff regarding this site. Adequate time has been allowed for the public to comment.

The extent of degraded groundwater off the site has been investigated to a limited extent. However, because a nearby dairy has been applying dairy wastewater in much of the area located surrounding the winery, the distinction between waste constituents originating in the winery verses the dairy, or other agricultural operation is undetermined (refer to WDRs Attachment D). The statement regarding groundwater migrating from the winery to the dairy is incorrect. The groundwater flow direction is to the northwest, and the winery is located west of the dairy. However, the winery LAAs are upgradient of some dairy LAAs; conversely, some dairy LAAs are upgradient of the winery LAAs. However, the extent of degraded groundwater, whatever the source of waste constituents, has not been fully delineated.

Performing tests of local domestic wells would not likely provide useful information because domestic wells are unlikely to be screened (or perforated) in the first saturated zone. If a well were only screened in the shallow zone, it could provide useful information, but such wells are unlikely to exist because the well could go dry seasonally with normal fluctuations of groundwater elevation. Any necessary monitoring is the responsibility of the Discharger, and not the Regional Water Board as the comment states.

No health risk assessment is necessary to determine groundwater limitations that are based on maximum contaminant levels or other numeric objectives.

Comment No. 5. The proposed WDR fails to support the Effluent Limitation for pH of 4.5 and must be revised to an appropriate level based on sound science and engineering practices.

RESPONSE: A new finding has been added to the tentative WDRs that addresses the pH limit.

Wastewater quality can vary significantly over short periods of time. Transportation of wine and/or pipeline sanitization practices can result in short term discharges of relatively pure volumes of wine (or other compounds) to the wastewater system. Although the discharge is a relatively small volume, it may have a low pH (in the case where wine is discharged). To avoid the FDS increase that would result from pH neutralization the pH limits were extended. In general, the wastewater will be pumped to the flow equalization tanks. That process will allow dilution and neutralization.

However, short term discharges of low pH may occur if the wastewater sump is discharged directly to the LAAs. Such discharges are considered acceptable because they will be of short duration, will consist of limited wastewater volume, and ample soil buffering likely exists. The topic of low pH wastewater discharge will be evaluated in the Crop Uptake and Assimilative Capacity report.

Comment No. 6. The proposed WDR fails include a dissolved oxygen (DO) limitation for the wastewater/tailwater ponds and must be revised to include a DO limitation of 1.0 mg/l for the ponds.

RESPONSE: Because the Discharger has stated wastewater will not be discharged to the tailwater basin, dissolved oxygen is not anticipated to be an issue. The dissolved oxygen standard is generally applied as an objective means to determine compliance with a subjective standard, which is no objectionable odor beyond the property boundary. In the tentative WDRs, Discharge Specification B.6 requires that objectionable odors at the facility shall not be perceivable beyond the limits of the Discharger's property. Discharge Specification B.7 requires sufficient dissolved oxygen to be maintained in any basin to prevent objectionable odors.

Comment No. 7 The proposed WDR contains no antidegradation analysis and does not comply with the requirements of the State Board's Antidegradation Policy (Resolution 68-16) and California Water Code (CWC) Sections 13146 and 13247.

RESPONSE: See Response to Comment No. 1.e. Sections 13146 and 13247 require other state agencies to comply with the Basin Plans when they discharge waste or undertake activities that affect water quality. These sections are inapplicable to this discharge.